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THE
FOURTH ABSTRACT
Of the State of the
MINES of *Bwlchyr Eskir-hir*,
IN THE
County of Cardigan:

From the 10th Day of *December* last (inclusive)
to this present 5th Day of *May*, 1701.

By Order of the Committee.

THE Committee, since their last printed Account of the Mines, have receiv'd several Letters from Mr. *Waller*, and others, to the effect following, viz.

December the 10th from Mr. Waller.

That on *Sunday* last he arriv'd at the Mines, from his Northern Journey, and found the Bargains and Works in good order.

The Bog-work continues in good Oar: we are crossing there from the Shaft K to h, and we are sinking a Shaft in the Oar, at H, to meet it. The new Work mends downward, and is much improv'd since I left it. We continue sinking in Oar at E, and the West Level goes well forward.

We are raising Oar in the ends of the great Work, but cannot reach the Sole for Water, being we cannot get the large Engine to draw Water.

We have the Timber upon the Cupulo at *Garrick*, and wall'd the Flews eight foot high. The new Key is wall'd, and we are filling it up to the Level of the Cupulo. I hope to have Fifty or Sixty Men soon after *Christmas*, they having promis'd to come as soon as they have receiv'd their *Christmas* Pay.

December 11. from Mr. Tho. Hawkins, at Neath.

That the Smelting and Refining at *Neath* goes well forward; and that he had sent by Mr. *Tanner*, the *Manmouth* Carrier, One thousand Sixty seven Ounces, Seventeen Pennyweight, Seven grains, of *Bullion*; together with his Accounts.

December 17. from Mr. Waller.

The Shaft at H, in the Bog-work, goes down in fine firm Potters-Oar, and widens as we go.

The New-work is much wider in Oar than when Mr. *Minsball* saw it, and the Oar there seems to be the same with that in the Bog-work.

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The Oar that we raise in the Ends of the great Work, is Steely and Starry Oar : And we have both Steely, Starry, and Potters Oar in the Shaft E, which lies there like Planks in a Floor. The West Level wants but Ten fathom of cutting into the Shaft, and if that were done, I should please you with raising of Oar.

The East Level wants but Seven yards of cutting into the Bog-vein, but it is much harder Stone than the West Level, and may not be in so soon.

January 14. from Mr. Waller.

The West Level goes well forward, and the Shaft E continues to sink in Oar. I cannot set on the great Work till I have more Pipes, and the great Engine fix'd. The new Work is very good : Sir H. Mackworth is now with me.

January the 29th.

Since my last, the Shaft which goes down in the Bog-work to meet the East Level, sinks in very good Oar ; and we raise Oar very well in the new Work, but can dress none at the present, by reason of the great Snow. The Shaft E goes down in good Oar, and that Level goes well forward.

February the 4th.

The West Level goes well forward, and the Shaft E goes down very well, and sinks in Oar ; and the new Work is very good : Likewise the Shaft at H in the Bog-work sinks in very good soft Oar. Sir H. Mackworth was viewing the Works yesterday, and likes them very well. The great Snows have been some hindrance to us ; as soon as I get the Pipes to the Mines, I will send for Mr. Thompson to fix them.

February the 11th.

The West Level goes well forward, and the Shafts both at E and H sink in very good Oar, so that we need not doubt Success, as soon as they are finish'd. I believe our Levels will be at the Shafts before they are sunk down, which will hasten our sinking, for then we can bore into the Levels, and let out the Water from the Shafts. The new Work continues very good. Pray order Mr. Thompson to be in readiness against I give notice.

February the 18th.

The Mines continue in the same state I mention'd in my last, without any material alteration. I will endeavour to be ready for Mr. Thompson by the Fifth of March.

February 18. from Neath.

That Capt. Turner, Commander of the Company's Ship call'd the *Mine Adventure*, was safely arriv'd at the Port of Neath.

February 25. from Mr. Waller.

That the Levels go well forward, and that they continue to sink in Oar both at E and H. The new Work continues very good, and the Oar is softer and firmer the deeper we go. I am cleansing the great Work, and shall be raising Oar at both ends till Mr. Thompson comes to fix his Engine, to have the Water from the Sole.

March the 4th.

Our Levels go well forward, and the new Work is very good, and we are raising Oar in the ends of the great Work, but have not yet got the Water down to

to the Sole. Our Shafts at E and H go well down, and are follow'd as quick as we can, being wrought at three and four shifts each.

I have begun to sink a Shaft in the soft Vein five foot North of the great Work. That small Vein is a yard wide, and has Oar mix'd in it; so I hope it may be all Oar at the deepness of our Level: This Vein is not figur'd in your Map.

March the 11th.

Our Levels and Sinking goes well forward, and the new Work is very good, and we continue raising Oar in the great Work. I know I can write nothing that will be so acceptable as having the Levels up, which shall be done with all the expedition imaginable.

March the 18th.

The new Work continues very good, and we raise Oar very well in the great Work, and the new Shaft there continues to go down very well, and the Levels goes well on.

March the 25th.

We have had the greatest Snow that has been known this Two Years, insomuch that I could not this week get to the Mines for Drifts.

April the 1st.

Dr. *Hutchinson* came here last *Wednesday*, and went to the Mines the next day; he was down in the New Work and Great Work, but most of the Great Work was under Water: we had some Stoups, in the ends of it, that is Three Foot wide in Oar, and some that is more: These were not half a Yard wide the last *December*, being in a Twitch, but are now cutting out. The Dr. saith, It answers the Character given of it in *London*, the which he could not have suppos'd, if he had not seen it. The Levels goes well forward; but I will defer giving you any further Account, till your Officer *David Jones* comes up, which will be some time the next week.

April the 8th.

I have now brought up the West Level to the Shaft E, and have Oar in the Sun-Vein: I am driving in that Shaft two Drifts in Oar, the one to the East, and the other to the West, and have very good soft Oar in both places; and it stands in a white soft Spar, which the Miners call a *Sugar-Spar*. The Oar in this Level is Five Foot wide, and Fifty Yards from the surface of the Ground.

Ibid. I begun a Shaft 56 Yards West of K, intending to go down upon the Clay-Vein, in order to have the East Level to the New-work, as well as the Bog-work, and luckily lit upon the top of the Copper-Vein at six Yards deep, where we have a Rib of pure Copper-Oar of a Foot wide, which I doubt not but will be much thicker at our Level. Mr. *David Jones* brings some of the Oar with him; I have made two tryals of it, the first was Half an Ounce, in a Smith's Forge, from which I had in fine Copper *Twopenny-weight*, which is one Fifth; the second was in my own Furnace, and there I try'd an Ounce, and that yielded *Fivepenny-weight Sixteen grains*; so that Three and a half of that Oar will produce One in fine Copper.

April the 15th.

I am hastening down the Shaft at (E) as fast as I can, being scarce of Air till that be down.

We have our Shaft at the great Work in the Clay-Vein Thirty-one Yards deep, and wants Thirty-three Yards more to the Level. We have sometimes Sparks of Oar in this Shaft; and, I presume, it may be in Oar before it reach the Level. I hope to get this Shaft down without Mr. *Thompson's* Engine, and then

then I can make use of that Engine when I am up with my Level there, and by the help thereof draw the Water to the Level, and sink Twenty Yards, or more, under our Level, where the Oar is betwixt Two and Three Yards broad.

We are hastening our West Level forwards to the great Work with all the expedition imaginable, as also our East Level, in order to set the new Work and the Copper-Vein free from the Water.

The great Objection, whether the Veins set as deep as our Level, is now solved.

April 22.

We met with a Vein of white Oar above Two Foot wide in the East Drift from the Shaft (e), which is much lighter than the blue, but it is easie to be got, and quick in running; I hope it will do us good service in smelting the blue Oar.

The New Work, and the East Level, go on very well; and the West Drift from the Shaft (e) is very rich, and I doubt not but will produce much Oar; and I hope in a short time to shew the Works in as great Perfection as ever I promis'd them; for I find we have more Veins than I had found when I made the Map. I am sinking the Shaft at the Sun-side of the Copper-Vein: till that be down, I can give no further account of it.

I presume now all the *Objections* to the Lead-Mines are answer'd, the Veins proving good at the Sole, as well as the Surface of the Ground, and the only Impediment to the working of the Mines (which was the Water) being totally remov'd.

And as to the *Copper-Vein*, I did not expect it would have gather'd into a firm Rib of Oar so near the Surface, and so very rich in its kind: I doubt not but that Vein will answer your Expectation.

April the 29th.

The new Vein of white Oar mends upon us, and looks as if we were in a Mine of Diamonds; all the other Works go well forward: I find, the deeper and farther we go, the wider are the Veins; so I see I cannot fail neither in Breadth nor Number, and I don't doubt neither Quantity nor Quality.

L O N D O N,

Printed by Freeman Collins, in the Old-baily, 1701.

